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News Summary

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Oklahoma would close some colleges and merge others under a restructuring proposed by Gov. Henry Bellmon. Story on Page 19.

The case of a Northwestern University professor accused of disrupting an appearance by an anti-Sandinista Nicaraguan has raised concerns over free speech and charges of a political witch-hunt. Story on Page 13.

A tiny footnote in last year's Tax Reform Act is creating big problems for college and university fund raisers. Story on page 26.

Stanford University, which has announced the largest fund drive in the history of higher education, says it will need every penny of its $1.1-billion goal. Story on Page 23.

New strategies for "enrollment management" are helping many colleges attract and retain more students. Story on Page 27.

Scholarship cuts approved by the National Collegiate Athletic Association have angered many basketball coaches. Story on Page 31.

Athletic directors from several major conferences are getting involved in the movement to reform intercollegiate athletics. Story on Page 31.

A threatened strike by professors in Britain has apparently been averted by a salary offer that would give them an immediate, 16-per-cent increase. Story on Page 35.

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Big-Ticket Science Research Is Pinching U.S. Projects, Harming Smaller Efforts

By KIM McDONALD

Giant experimental devices and sophisticated research instruments that seek to push back the frontiers of science are becoming so expensive that they may squeeze federal research budgets and threaten to destroy many smaller research efforts, some scientists fear.

In astronomy, particle physics, and other "big science" disciplines, the trend toward larger and more sophisticated research tools to probe smaller or more distant regions has radically altered the way research in those fields is conducted.

Fifty years ago, major discoveries in particle physics could be made by individual researchers using relatively inexpensive instruments. Now, major projects may require large teams of researchers working on devices that cost hundreds of millions, even billions, of dollars.

"The problem is symptomatic of a number of fields," said John E. Pike, associate director for the Federation of American Scientists. "All of the easy questions have been answered."

Deciding Where to Draw the Line

As demands for the big-ticket items rise, so too do the pressures on scientists to confront the difficult task of deciding where to draw the line.

At what point, they are being asked by lawmakers and other scientists, does the cost of a big-science facility outweigh any future gains in knowledge that a large number of less costly projects can produce?

Should big-science fields and their expenditures be allowed

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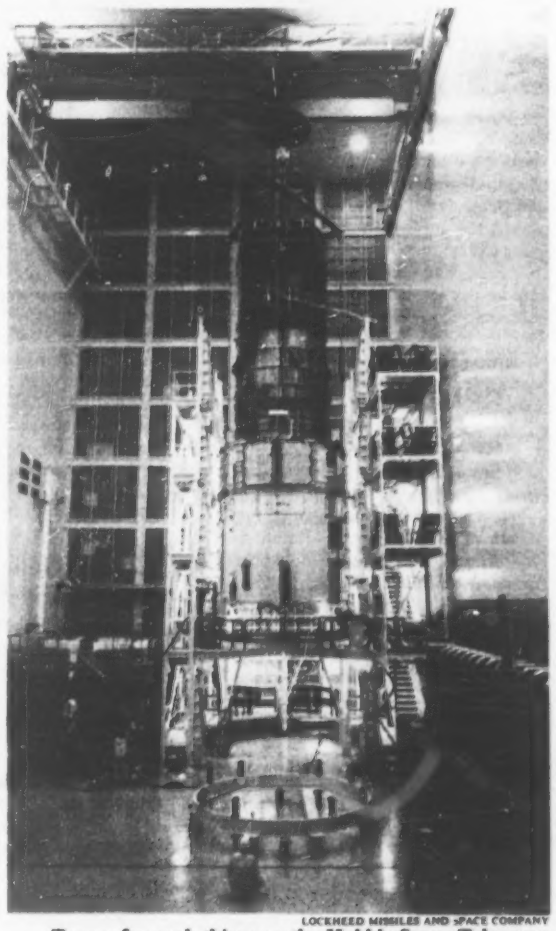

LOCKHEED MISSILES AND SPACE COMPANY

To pay for such things as the Hubble Space Telescope (above), scientists have had to cut smaller enterprises.

Bad News for Public Colleges: Economies Slump in Many States

By CAROLYN J. MOONEY

The state of many states is not promising for higher education this year.

The nation's governors, continuing a tone set when they proclaimed 1986 as the year to focus on education, were enthusiastic about the role of colleges and universities in transforming state economies in their recent state-of-the-state and budget messages. But many states won't have the money available to do much about it, and when they do, they are likely to be more careful about spending it.

"I have submitted an extremely tight budget, the first in modern history that is lower than the preceding budget," North Dakota Gov. George A. Sinner told legislators in his state-of-the-state remarks. "The fact is—our falling revenues will not pay for needed services."

Higher-education systems in 20 states, including North Dakota, have already been forced to make budget cuts in the midst of the current fiscal year. Most of those states rely heavily on income from the financially strapped agricultural, oil, or energy-related industries.

Midyear budget cuts have hit colleges in 20 states. Story on Page 19.

In the 12-month period ending last June, for example, the total amount of taxes that states collected from oil, gas, coal, and other industries dropped by $700-million—from $7.1-billion to $6.4-billion—according to the Bureau of the Census. The losses were reflected in virtually all areas financed by state revenues, including higher education.

The fact that states have less money on hand now than they did six years ago is a significant measure of their overall finan-

Continued on Page 20, Column 1

New Tax Law Complicates Retirement Planning for College Employees

By KATHERINE S. MANGAN

WASHINGTON

Ruth and Otto Landman had planned carefully for their retirement and thought they had their finances squared away.

Over the years the two, both university professors, had tucked money into tax-deferred accounts to supplement the income they would receive from their separate pension plans.

But just as Mr. Landman was about to retire from his teaching position at Georgetown University here, Uncle Sam threw the couple a curve: a new tax law that will wipe out some of their tax shelters and complicate their savings strategy.

"We're a little uncertain what our income will be now," says Mrs. Landman, a professor of anthropology at the American University here. "There are so many unknowns, so it's quite difficult to sort out."

Faculty members and administrators across the country are voicing the same frustrations as they try to assess the impact of the new tax system on their retirement plans. Because the law does away with many of the exemptions that higher education has enjoyed in the past, it could make faculty retirement planning harder and more expensive, some experts say.

Under the old law, faculty pensions were quite flexible, allowing participants to shelter large amounts of money that could in some cases be withdrawn for non-retirement purposes.

The new tax law, however, limits the amount of money that employees can put into tax-favored retirement plans, and it

Continued on Page 14, Column 1

Ways & Means

Education Department officials are protesting a new White House proposal to lump student-aid dollars with other federal money for low-income people and allow states to distribute it as they see fit.

The White House says the plan, which is still on the drawing board, would simplify the administration of federal welfare programs. But Education Department officials say that giving the states more control over the money that now goes directly to students or colleges would actually make things more complicated.

Furthermore, the Education Department says, there would be no assurance that states would use student-aid money for educational purposes.

It was still unclear last week whether the White House would agree to eliminate education programs from the plan before sending it to Congress.

▪

Efforts by Nevada higher-education officials to pass an estate-tax referendum last fall are paying off exactly as they had hoped: Gov. Richard H. Bryan has proposed splitting the estimated $10-million the state will collect in estate taxes over the next two years between higher education and public schools. And that dollar estimate was made before the death of Liberace, one of Nevada's wealthiest entertainers.

Mr. Bryan's proposal must be approved by the Legislature before it can take effect.

The University of Nevada helped mount a publicity campaign to persuade Nevada residents that they had nothing to lose by approving the referendum, which allows the state to collect a share of federal estate taxes. Until the referendum was approved, Nevada was the only state that didn't collect its share of such taxes.

Higher-education officials admit that the wealth of Nevada's many casino magnates added inspiration to their campaign. "What really got morbid," said Pamela E. Galloway, the system's public-information director, "was when we started thinking about people who haven't died yet."

▪

Northern Illinois University officials have found a new way to get legislative support for their programs. They have started a "Legislator in Residence" program to honor selected lawmakers and provide them with a day of activities on campus.

The university selected perhaps the state's most powerful legislator—Speaker of the House Michael J. Madigan—to inaugurate the program. Mr. Madigan met with administrators, students, and faculty members during his day on the campus.

Ever anxious to demonstrate the political clout of higher education, university officials also arranged a meeting for Mr. Madigan with students from his home district.

Government & Politics

States' Midyear Budget Cuts Wreak Havoc on Campuses; Northeast Alone Is Spared

More than $500-million for higher education has been cut for 1986-87; many governors are upset

By SCOTT JASCHIK

Now you see it, now you don't.

That's the way the money situation has been for colleges and universities in 20 states this year. In those states, governors and other state officials have cut a total of more than $500-million from higher-education budgets for 1986-87 in the middle of the fiscal and academic year.

College officials say these midyear reductions—usually called "reversions" or "recisions" in budget jargon—are extremely debilitating.

"It raises havoc," says Carrol Krause, Montana's commissioner of higher education. "Emergency planning just doesn't make for good management, and you have to take money wherever you can find it."

Mr. Krause and his colleagues say the cuts are difficult to absorb because they typically come when half the year has already passed, and half the money for that year has been spent. Hence a 4-per-cent cut in total appropriations is actually an 8-per-cent cut for the second half of the year.

Finding items to cut is more difficult midway through the year because contracts may have already been signed for the full year, and course offerings may have already been announced.

"It becomes impossible to plan from one semester to the next," says Marvin L. Roubique, Louisiana's assistant commissioner of higher education for finance. "You never know what you're going to offer, what tuition you are going to charge, or how many students will pay that tuition."

The midyear cuts also upset governors. South Carolina's new chief executive, Republican Carroll A. Campbell, Jr., recently told his General Assembly to adopt a budget "which frees us from the shackles of midyear budget cuts." He added, "Those cuts disrupt the entire operation of state government. Our inability to discern good programs from bad forces blind cuts for everyone."

The number of states dealing with the problem has increased dramatically in the past few years. Last year 18 made midyear reductions; in 1985, only three states did.

Some states have been forced to reduce appropriations because of problems facing their most important industries—oil in Alaska, Louisiana, and Texas; agriculture in Kansas and Nebraska. Other states, such as Arizona, simply overestimated the amount of revenue they would take in.

New England and the Middle Atlantic States were the only regions not subjected to the cuts this year.

Acting When Revenues Decline

Regardless of economic problems, state leaders are forced to act when revenues decline. Unlike the federal government, virtually all state governments are prohibited from running a deficit.

In most states, governors have the power to order the across-the-board reductions needed to balance their budgets, but must call legislatures into special sessions if they want to eliminate the deficit through selective cuts, tax increases, or a combination of the two.

But the process varies widely. In Kentucky, for example, the governor can order cuts only up to 2.5 per cent. For larger reductions, the General Assembly must adopt a budget-cutting plan when it considers the appropriations bill. In South Carolina, decisions on cuts fall to the State Budget and Control Board, whose members are the Governor, state treasurer, state comptroller general, and the chairmen of the House Ways and Means Committee and Senate Finance Committee.

Tuition Hike Avoided in California

Sometimes the magnitude or type of cut can be changed by higher-education officials. In California this year, after Republican Gov. George Deukmejian announced a 2-per-cent budget reduction for state agencies, university officials said they would be able to offset the cut only with a rise in tuition, and a California law requires 10 months' notice for any such increase.

Governor Deukmejian allowed the universities to cut their state appropriations by only 1 per cent to avoid the rise.

One of North Dakota's midyear cuts came in the form of a delay for a scheduled salary increase for state employees. John A. Richardson, commissioner of higher education, received permission from state of-

Continued on Page 21, Column 3

Oklahoma's Governor Would Close Some Colleges, Merge Others to Cope with Decline in Oil Revenue

OKLAHOMA CITY

Oklahoma's Gov. Henry Bellmon has proposed a dramatic restructuring of public higher education here, including closing some colleges, merging others, and establishing new governing boards for most of the remaining institutions.

Governor Bellmon, a Republican who took office last month, said the changes were necessary because the state's oil revenue had declined drastically in the past year. Citing the need for a smaller, more efficient state government, he proposed similarly sweeping plans for many other agencies.

For higher education, Governor Bellmon's proposals included:

► Closing the University of Science and Arts of Oklahoma, the Oklahoma College of Osteopathic Medicine and Surgery, and the University of Oklahoma's College of Dentistry.

► Merging Tulsa Junior College and the University Center at Tulsa; Oklahoma City Community College, the Oklahoma State University Technical Branch in Oklahoma City, and Rose State College; and Sayre Junior College and Western Oklahoma State College.

► The creation of four governing boards for the state: for the University of Oklahoma, Oklahoma State University, four-year colleges and universities, and two-year institutions. At present, the state has 16 governing boards: one for the University of Oklahoma; one for Oklahoma State, three for four-year colleges, and two for two-year colleges; one for six regional colleges and universities; and one for each of two four-year institutions and 11 two-year institutions.

Critics Vow to Fight

The Governor said those steps would save money and improve the quality of education by enabling Oklahoma to focus its limited funds on the programs most important to the state.

Most officials at the colleges slated to be closed or merged have criticized the plan, or at least the parts of it involving their institutions.

While critics vowed to fight the proposals, aides to the Governor predicted that much of the plan would be adopted by the legislature. "Those who see themselves harmed may be against it," said Smith L. Holt, the Governor's Secretary of Education, "but those who look at the system as a whole are for it."

He also noted that many of the Republican Governor's proposals had been recommended late last month by a committee appointed by the outgoing Democratic Governor, George Nigh, and legislative leaders.

The political outlook for the plan is uncertain. State leaders trying to close colleges generally face difficult fights, as local legislators and alumni rally around their institutions.

But even college officials acknowledge that the state lacks the funds to maintain all its current operations.

With many other popular state programs—such as veterans' affairs and parks and recreation—under consideration for reductions this year, they say it is unlikely that higher education will avoid major cuts.

'It Doesn't Make Sense'

Nonetheless, some college leaders have started a drive to persuade legislators to reject the plan.

John H. Feaver, assistant to the president at the University of Science and Arts in Oklahoma, said he had been "shocked and surprised" to learn of the Governor's

Continued on Page 21, Column 1

Seek Tax Increases to Help Higher Education

"I think it goes back to the conservative nature of the state," agrees Clyde R. Ingle, Indiana Commissioner for Higher Education. "It's that people just haven't decided that higher education is that important yet."

Utah. This heavily Mormon, solidly conservative state faces problems caused by an unusually high birth rate and depressed energy and mining industries. Enrollment in public schools is growing rapidly—a net increase of nearly 12,000 is expected this year—and the boom will soon reach the state's colleges and universities. At the same time, economic problems have forced higher education and other state agencies to make midyear budget cuts.

In a state-of-the-state address that borrowed from Winston Churchill and also took a while to build up to the part about taxes, Gov. Norman H. Bangerter proposed a combination of new and higher taxes to raise $206-million for public schools and higher education. It would, in effect, restore the amount that was cut last year to this year's budget, and also give the system a small increase.

As in Indiana, the Governor's tax proposals—the biggest tax increase ever sought in Utah—have been unpopular with many legislators. In the meantime, however, a coalition that was formed last year to develop grassroots support for education is conducting a frenzied lobbying blitz.

The group, called the ALERT Foundation, was formed to promote Governor Bangerter's long-term education plan, which he calls his Agenda for Leadership in Educational Resources for Tomorrow. The University of Utah's President Chase N. Peterson and other college leaders have appeared on radio and television to support the Governor's tax package, and the foundation is soliciting university alumni for donations and sponsoring advertisements.

"The Governor is very courageous, considering he didn't have any special insight or relationship with higher education," Mr. Peterson says. He adds that he is optimistic that legislators will pass some kind of tax package.

Washington. Like Governor Orr of Indiana, Gov. Booth Gardner has proposed dropping the state sales tax by a half-cent but extending it to include consumer and professional services. Such a tax would raise an estimated $522-million for the 1987-89 biennium, with nearly $200-million going to higher education.

The Governor's higher-education proposals are aimed primarily at diversifying Washington's economy. The percentage of state money spent on higher education has fallen in recent years, and past attempts to create a state income tax have failed.

Since he proposed the tax last fall, Governor Gardner and his aides have traveled across the state lobbying for support, attracting plenty of media attention and inspiring political cartoonists. Jokes Rep. Dan Grimm, chairman of Washington's House Ways and Means Committee: "He never has to open car doors anymore. A university president will do it for him."

Other state employees were furious that the Governor's budget would give them only a 3-per-cent raise, while giving faculty members much more.

But according to Mr. Grimm and others, this appears to be higher education's year in Washington. While the Governor's whole package may not pass, the higher-education portion is gaining support, Mr. Grimm says. The reason lies, as it often does these days, in economic development.

"The Governor has wisely abandoned the smokestack-chasing approach, making offers to bring in Saturn [auto-manufacturing] plants," Mr. Grimm says. "That was the Clint Eastwood approach to economic development—go out and shoot 'em. But now he's taking a long-term approach, and education is part of it."

•

In the coming weeks, legislators in Indiana, Utah, Washington, and elsewhere will have to decide whether or not they agree with Mr. Grimm's assessment. But if legislators decide to take the long-term approach and raise taxes, higher education will also have to show more foresight, warns Mr. Sinks of Indiana.

In recent years, Indiana institutions have been asked to report regularly on performance goals set in advance, a practice Mr. Sinks thinks should continue.

"Before, nobody knew what they did with the money," he says. "Higher education doesn't tell us enough, and they don't tell the public enough."

INDIANAPOLIS NEWS

Indiana's Gov. Robert D. Orr: His plan to raise faculty salaries and increase student aid is tied to higher taxes.

ty chairs, and $1-million to start a work-study program for students.

Other governors' proposals:

► In Hawaii, Gov. John D. Waihee, III, wants to give the University of Hawaii system $20-million to improve selected academic programs, provided that the system reallocates $10-million to those programs.

► In Minnesota, Gov. Rudy Perpich wants to give the University of Minnesota system an 18.1-per-cent increase over the next biennium, using money from a newly proposed tax package. But his plan also would reduce spending for state scholarships.

► In Nevada, Gov. Richard H. Bryan proposed spending $195,000 to establish 180 scholarships over the next four years. They would be used to encourage top high-school graduates to enter the teaching profession.

► In South Carolina, Gov. Carroll A. Campbell, Jr., proposed eliminating remedial courses at four-year institutions, using the savings to finance a research program linking the state's three major universities.

► In South Dakota, Gov. George S. Mickelson is seeking a 1-cent sales-tax hike to finance an economic-development program. He wants the state to use surplus tax money from the unemployment fund to finance a new $4.7-million research program for state universities and give faculty members and other state employees a 3-per-cent raise.

Okla. Governor Seeks Closings, Mergers

Continued from Page 19

recommendation. "Our undergraduate liberal-arts programs are unique in the state and consistent with the programs being called for in the national reports," he added. "It doesn't make sense to close us."

W. Roger Webb, president of Northeastern State University, said he opposed the plan to eliminate the governing boards for individual colleges, while maintaining individual boards for the two large universities.

"The plan seems to be looking at the best interests of two of the institutions at the expense of the rest," he said.

'Not Enough Leadership'

Governor Bellmon also called on the State Board of Regents for Higher Education, the statewide coordinating board, to do a better job of defining institutional and system missions and eliminating duplication.

His aide Mr. Holt said, "We think there has not been enough leadership there."

The regents have not responded to the Governor's proposals or comments, but relations between the board and Mr. Bellmon were tense even before he was elected.

In October he called on Joe A. Leone, the board's chancellor, to take a leave of absence while the State Attorney General investigated allegations that Mr. Leone had improperly received state funds from Rose State College after leaving that institution's presidency. Mr. Leone denied any wrongdoing and has not left his position.

Said Mr. Holt: "The Governor thinks he should step aside. There is still a serious question of ethics involved."

Legislative hearings on the Governor's proposals are expected to start later this month. —SCOTT JASCHIK

Midyear Budget Cuts Wreak Havoc on Campuses

Continued from Page 19

ficials to cut funds in other areas so faculty members could receive their salary increase on schedule.

Community colleges in some states benefit from their status as local, rather than state, agencies. State funds for their operations are delivered to local governments, which then distribute the money to the colleges. Once the funds are disbursed, the state can't take them back. For that reason, community colleges in California and Texas were spared the budget cuts that four-year colleges and universities faced this year.

Another type of cut occurs when a governor tells state agencies that their next budget will contain major reductions, and advises them to "voluntarily" cut from their current budget so that funds saved can be used to following year.

That was the case this year in Oklahoma and Utah, although Utah's colleges also suffered an involuntary cut and the Oklahoma Legislature is expected to approve a 3-per-cent mandatory cut proposed by Republican Gov. Henry Bellmon.

No Surprise in Arkansas

Although budget cuts in most states come as a major disappointment to higher-education officials, in Arkansas reductions are almost always expected. In that state, legislators approve budget items in three categories for each agency. Two categories are for improvements and "wish-list items," says Paul Marion, director of higher education, and legislators in recent years have approved them realizing that the funds would probably not be available.

"It's normal to get those things cut," he says, adding though that this year, Democratic Gov. Bill Clinton was also forced to cut items in the first category, which generally includes financing only to continue current programs.

Looking to next year, Mr. Marion says he will give more credence to the state of the economy than to the budget adopted by the legislators.

"Unless you really know what's going to happen in the economy—and we don't—the budget is only going to be a ballpark figure," he says.

Midyear Cuts in State Appropriations for Higher Education

Alabama	Cut $26-million	5 per cent
Alaska	Cut $14-million	10 per cent
Arkansas	Cut $55-million	17.5 per cent
Arizona	Cut $32.6-million	7 per cent
California	Cut $37-million	1 per cent
Colorado	Cut $5-million	2 per cent
Kansas	Cut $13.3-million	3.8 per cent
Kentucky	Cut $11.8-million	2.4 per cent
Louisiana	Cut $41-million*†	8.8 per cent
Minnesota	Cut $37.6-million‡	2.5 per cent
Montana	Cut $10-million*	12 per cent
Nebraska	Cut $2.1-million	1 per cent
New Mexico	Cut $4.5-million	2 per cent
North Dakota	Cut $4.2-million†‡	5.5 per cent
South Carolina	Cut $11.9-million	2.6 per cent
South Dakota	Cut $850,000	1 per cent
Texas	Cut $199-million	10.5 per cent
Utah	Cut $10.3-million	4 per cent
Wisconsin	Cut $32-million	5.8 per cent
Wyoming	Cut $19.5-million†‡	8.2 per cent

Note: Percentages represent cuts in total higher-education appropriations. The ways in which states divide the reductions among their higher-education institutions vary widely. In several states, tuition increases have partially offset reductions in appropriations, so overall budget reductions are lower.

* Cumulative total for two midyear cuts.

† Additional cuts may be announced this month.

‡ Figures are for biennial budgets.

Colleges Challenge Bennett's Views on Dropouts

By ROBIN WILSON

WASHINGTON

Education Secretary William J. Bennett has again infuriated college officials by questioning the quality of their curricula.

The controversy centers on Mr. Bennett's allegation that students are not finishing college as quickly as they used to because their studies are not compelling.

But college representatives say students are taking longer to complete their college programs for other reasons, including financial pressure to drop out and work instead of staying on the campuses. They say many students who drop out eventually return and earn their degrees.

"Almost half the students who enter four-year programs do not complete those four-year programs. We think that's a problem," Mr. Bennett told a House Appropriations subcommittee recently.

"What kind of movie are we running if so many of the people are getting up and walking out before it's over?" the Secretary asked members of the House Budget Committee at another hearing.

Bruce M. Carnes, Deputy Under Secretary of Education, said the department's statistics showed that 51 per cent of the students who started bachelor's degree programs in academic 1957-58 earned their degrees in four years. Only 38 per cent of the students who started such programs in 1981-82, he said, graduated in four years.

"People used to go to college and stay there because they got something worth having," he said. "It's obviously not that way now."

More Students Are Older

College officials say that just because students drop out doesn't mean they don't enroll again and eventually graduate. The American Council on Education says 74 per cent of the students who attend college finish within six years of when they began.

College officials say there are many reasons why fewer students are finishing college in four years, none of which has to do with the quality of education being provided.

First, they say, more and more students are older and attending college part time. Those students could not possibly finish in four years, the officials say. According to the A.C.E., 5.7 million of the 12.4 million students now enrolled in college, or 46 per cent, are attending part time.

Second, college officials say many students must drop out of college to work and earn money for tuition.

Mr. Carnes, however, said 45 per cent of students already received federal aid and the growth in student aid had roughly kept pace with the growth in college costs.

"I don't think the solution is just more money for people to stay there," Mr. Carnes said. "There are the means available for them to stay in school. They are making a value judgment not to."

Others disagreed. "Students may be getting more out of their education by taking time out for periods of employment," said Lawrence E. Gladieux of the Washington office of the College Board. "That may give them a more solid set of goals. They'll know what they want to get out of an education."

FACT-FILE

U.S. Funds for Colleges and Universities

The top 100 institutions in total federal obligations for fiscal 1985

	Research and development[1]		Total federal obligations[1]	
	Amount	Rank	Amount	Rank
Johns Hopkins U.[2]	$429,180,000	1	$448,068,000	1
Massachusetts Institute of Technology	187,649,000[3]	2	211,480,000	2
Stanford U.	174,961,000[3]	3	203,707,000	3
U. of Washington	146,179,000	4	183,352,000	4
Howard U.[4]	13,769,000	110	163,879,000	5
Columbia U., Main Division	127,331,000	6	155,971,000	6
Cornell U.	119,966,000[3]	8	155,831,000	7
U. of California, Los Angeles	128,211,000	5	151,180,000	8
U. of Wisconsin, Madison	124,604,000	7	148,703,000	9
U. of Minnesota	103,272,000	14	142,497,000	10
Yale U.	109,227,000	10	133,756,000	11
U. of Michigan	108,035,000	11	133,679,000	12
Harvard U.	109,414,000	9	131,790,000	13
U. of California, Berkeley	106,710,000[3]	12	129,841,000	14
U. of Pennsylvania	103,119,000	15	126,523,000	15
U. of California, San Diego	103,603,000	13	117,937,000	16
U. of California, San Francisco	98,536,000	16	114,634,000	17
Pennsylvania State U.[5]	76,723,000	19	111,279,000	18
U. of Southern California	89,646,000	17	102,542,000	19
U. of Illinois, Urbana-Champaign	83,122,000	18	99,423,000	20
U. of Colorado	71,424,000	23	90,793,000	21
New York U.	74,577,000	20	89,244,000	22
Ohio State U.	56,065,000	30	87,154,000	23
U. of Chicago	71,194,000[3]	24	83,957,000	24
Washington U.	71,978,000	22	82,607,000	25
Duke U.	69,169,000	26	81,712,000	26
U. of Rochester	70,379,000	25	81,073,000	27
U. of Texas, Austin	72,379,000	21	78,729,000	28
U. of Pittsburgh	58,620,000	28	76,163,000	29
Purdue U.	51,475,000	34	75,298,000	30
Northwestern U.	48,747,000	39	75,285,000	31
U. of North Carolina, Chapel Hill	63,105,000	27	73,431,000	32
Michigan State U.	46,945,000	42	72,795,000	33
U. of Florida	47,656,000	41	72,675,000	34
U. of Iowa	55,117,000	31	70,326,000	35
U. of Arizona	49,740,000	37	67,080,000	36
Indiana U.	39,660,000	48	65,013,000	37
U. of Maryland, College Park	51,013,000	35	64,646,000	38
Yeshiva U.	56,988,000	29	64,623,000	39
U. of Utah	50,938,000	36	63,837,000	40
Texas A&M U.	39,041,000	49	62,003,000	41
Gallaudet U.[4]	2,173,000	207	61,173,000	42
Georgia Institute of Technology	51,585,000	33	59,606,000	43
Boston U.	46,152,000	43	59,387,000	44
U. of Alabama, Birmingham	44,093,000	45	59,373,000	45
California Institute of Technology	55,083,000[3]	32	58,499,000	46
Inter American U. of Puerto Rico, San German	$ 0	—	$57,591,000	47
Case Western Reserve U.	47,994,000	40	56,465,000	48
Carnegie Mellon U.	48,872,000[3]	38	54,052,000	49
U. of California, Davis	43,156,000	46	52,247,000	50
Louisiana State U.	34,764,000	54	51,155,000	51
Baylor C. of Medicine	45,837,000	44	49,670,000	52
U. of Miami	33,709,000	58	47,726,000	53
U. of Kentucky	21,931,000	83	47,300,000	54
Vanderbilt U.	39,909,000	47	47,096,000	55
U. of Virginia	37,416,000	51	46,858,000	56
Oregon State U.	33,746,000	57	46,154,000	57
North Carolina State U.	27,357,000	68	45,515,000	58
Rutgers U.	26,689,000	70	45,442,000	59
U. of New Mexico	31,362,000	62	44,189,000	60
U. of Georgia	23,800,000	76	44,092,000	61
U. of Texas Health Science Center, Dallas	37,432,000	50	43,495,000	62
U. of Puerto Rico, Regional Colleges Administration	0	—	43,014,000	63
U. of Connecticut	32,775,000	59	42,941,000	64
U. of Illinois, Chicago	28,172,000	65	42,395,000	65
U. of Massachusetts, Amherst	25,780,000	72	41,249,000	66
U. of Cincinnati	27,886,000	67	41,117,000	67
Princeton U.	34,720,000[3]	55	41,091,000	68
New Mexico State U.	24,861,000	73	40,883,000	69
U. of Tennessee, Knoxville	23,226,000	79	39,665,000	70
U. of Kansas	20,676,000	86	39,505,000	71
U. of Hawaii, Manoa	29,090,000	63	39,084,000	72
State U. of New York, Stony Brook	35,059,000	53	39,068,000	73
U. of California, Irvine	31,515,000	60	38,927,000	74
Tufts U.	34,495,000	56	38,036,000	75
Virginia Polytechnic Institute & State U.	24,565,000	75	37,878,000	76
Rockefeller U.	35,285,000	52	37,745,000	77
Virginia Commonwealth U.	28,896,000	64	37,706,000	78
Colorado State U.	24,767,000	74	37,331,000	79
Rochester Inst. of Technology	1,356,000	230	36,582,000	80
U. of Missouri, Columbia	22,343,000	81	36,552,000	81
State U. of New York, Albany	11,530,000	117	34,446,000	82
Iowa State U.	14,555,000[3]	106	34,276,000	83
Woods Hole Oceanographic Institute	31,392,000	61	33,814,000	84
Temple U.	18,954,000	92	33,564,000	85
Emory U.	27,005,000	69	33,161,000	86
Utah State U.	22,067,000	82	32,415,000	87
Brown U.	26,029,000	71	31,178,000	88
City U. of New York, Mount Sinai School of Medicine	28,059,000	66	31,054,000	89
Oklahoma State U.	10,666,000	124	30,829,000	90
U. of California, Santa Barbara	23,602,000	78	30,145,000	91
U. of Oregon, Main Campus	17,445,000	94	29,843,000	92
Washington State U.	17,381,000	95	29,614,000	93
Puerto Rico Jr. C.	0	—	29,341,000	94
Mississippi State U.	14,459,000	107	29,186,000	95
Georgetown U.	16,194,000	93	27,929,000	96
State U. of New York, Buffalo	23,051,000	80	27,842,000	97
Wayne State U.	16,598,000	100	27,282,000	98
Syracuse U.	17,035,000	97	26,803,000	99
Kansas State U.	9,871,000	129	26,539,000	100
Total, 100 institutions	**$5,326,087,000**		**$7,151,433,000**	
Total, all institutions	**$6,379,151,000**		**$10,984,597,000**	

Note: Federal obligations are funds set aside for payment. Institutions do not always receive them during the year in which they were obligated.

1. Amounts shown represent total obligations from 15 federal agencies that accounted for about 96 per cent of all federal obligations to universities and colleges in the United States and for virtually all federal obligations to such institutions for research and development. Amounts shown represent awards to individual institutions. Awards to the administrative offices of university systems are excluded from institutional totals because final allocation of funds is unknown, but are included in "Total, all institutions."
2. Includes $299-million obligated to the Applied Physics Laboratory, considered a federally financed research-and-development center until fiscal 1978.
3. Excludes research and development obligations to university-administered federally financed research-and-development centers.
4. Howard U. and Gallaudet U. receive substantial appropriations from Congress each year for general operating expenses.
5. Includes $6-million obligated to the Applied Research Laboratory, considered a federally funded research-and-development center until fiscal 1978.

SOURCE: NATIONAL SCIENCE FOUNDATION

In Federal Agencies

Broadcast licensing. The Federal Communications Commission has issued a final rule, effective March 12, relaxing the license-posting requirements for experimental broadcast stations and for Instructional Television Fixed Services (*Federal Register*, February 6, Pages 3,805-6).

Exchange programs. The United States Information Agency has announced changes in the Exchange Visitor Skills List, including one to reflect the indefinite suspension of Libya from the list (*Federal Register*, February 5, Pages 3,744-5).

Data collection. The following agencies have submitted lists of their data-collection requests to the Office of Management and Budget for review: Department of Health and Human Services (*Federal Register*, February 6, Page 3,864); Housing and Urban Development Department (*Federal Register*, February 6, Pages 3,868-9); National Aeronautics and Space Administration (*Federal Register*, February 9, Pages 4,046-8); Education Department (*Federal Register*, February 11, Page 4,379-81).

Health education. The Public Health Service has announced the quarterly interest rates for Health Education Assistance Loans made after March 31, 1987 (*Federal Register*, February 11, Page 4,388).

Nuclear waste. The Nuclear Regulatory Commission has published its final ruling on the information the Department of Energy will need to determine the effects radionuclide sorption has on the ability of high-level nuclear-waste repositories to meet certain federal standards (*Federal Register*, February 6, Pages 3,893-4).

Records disposal. The National Archives and Records Administration has published a list of federal agency requests to dispose of records or shorten the period during which the records will be kept (Federal Register, February 6, Pages 3,892-3).

Research misconduct. The National Science Foundation has proposed regulations to establish what actions should be taken if misconduct or fraud occurs in research that is supported by the foundation. Comments must be received by April 13 (*Federal Register*, February 10, Pages 4,158-61).

Unemployment insurance. The Employment and Training Administration has ruled that federal unemployment-insurance laws do not apply to employees of educational institutions during breaks, as long as the employees have a "reasonable assurance" they will be able to return to the institution *Federal Register*, February 6, Pages 3,889-90).

Congressional Hearings

WASHINGTON

The following Congressional hearings of interest to educators and scientists are scheduled for the coming weeks.

Since changes frequently occur with little advance notice, it is advisable to check with committees on or near the hearing dates.

SENATE

Education. April 22. Hearings on the fiscal 1988 budget of the Department of Education. Contact: Senate Subcommittee on Appropriations for Labor, Health and Human Services, Education, and Related Agencies; (202) 224-7225.

Education. April 23. Hearings on appropriations for elementary, secondary, and postsecondary education. Contact: Senate Subcommittee on Appropriations for Labor, Health and Human Services, Education and Related Agencies; (202) 224-7225.

HOUSE

Campus facilities. February 26. Hearings on the fiscal 1988 budget for higher-education facilities programs and College Housing Loans. Contact: House Subcommittee on Appropriations for Labor, Health and Human Services, and Education; (202) 225-3508.

National Endowment for The Arts. March 26. Hearings on the fiscal 1988 budget for the endowment. Contact: House Subcommittee on Appropriations for the Interior; (202) 225-3081.

Washington People

Frank H. T. Rhodes, president of Cornell University, has been nominated by President Reagan to be a member of the National Science Board.

Lawrence E. Shulman, former director of the division of arthritis, musculoskeletal, and skin diseases at the National Institutes of Health, has been appointed director of the new National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Leo Walsh, dean of agriculture and life sciences at the University of Wisconsin at Madison, has been appointed by President Reagan to be a member of the Board for International Food and Agriculture Development.

Colleges Turn to 'Enrollment Management' to Lure More Students

Continued from Preceding Page
to really engage in a period of very intensive soul-searching."

Those involved in enrollment management have to ask a lot of questions about their institution: What is our mission? What are our strengths? Our weaknesses? How can we best market ourselves? How can we distinguish ourselves from our competitors? What kinds of students do we want to attract? What types will do best in this environment? How can we most effectively deliver an education?

What works, most experts agree, is a holistic approach that upgrades all aspects of the university—not just admissions—and helps to keep students as well as to get them. Often that can be a complex and time-consuming process that involves making substantial changes in marketing, restructuring the administration, changing the curriculum, and adding student services.

Scholarships from the Sky

Ideally, according to experts in the area, it involves regularly scheduled meetings among faculty members and those in charge of admissions, financial aid, registration, advising, career planning and placement, institutional research, orientation, and retention.

"A number of institutions would say they're adopting an enrollment-management approach, but really what they're adopting is an admissions-management approach," says Don Hossler, an assistant professor of higher education and student affairs at Indiana University at Bloomington and the author of *Creating Effective Enrollment Management Systems*, published by the College Board.

Rather than making a full commitment to enrollment management, he says, one college on the verge of going out of business dropped balloons from the sky with scholarship certificates attached to them, to attract students in nearby communities.

Declines No Longer Expected

The U.S. Department of Education now says that previously projected sharp declines in enrollments are no longer expected, relieving the initial impetus for enrollment management.

It projects that the number of traditional college-age students will remain relatively stable in most parts of the country. Older, non-traditional students are taking up some of the slack in regions that are experiencing declines, according to enrollment officials.

Concern among enrollment officials has shifted more toward retention. According to data from 2,600 institutions collected by the Noel/Levitz Centers for Institutional Effectiveness and Innovation—a consulting company for enrollment management—a year after enrolling, about one in three students is not attending the institution he or she entered as a freshman.

Because so many students drop out or transfer to another college after their first year, a great deal of emphasis is being placed nationwide on making the freshman year as crisis-free as possible.

Seminars and study-skills courses, some modeled after a program called "University 101" at the University of South Carolina, are being offered around the country to ease the transition from high school to college.

SAINT CLOUD STATE U.

Dorothy Simpson: "I'm hoping that we are able to serve the students we have and the students we are recruiting much better."

At Saint Cloud, a one-credit course called "Orientation" gives freshmen the information they'll need for the rest of their college experience: how to choose a major, how to use the library, memory techniques, and tips on getting along with people in one's dormitory.

Across the country, such classes, as well as introductory prerequisite courses typically taken by freshmen, are frequently being taught now by the best professors.

According to Lee G. Noel, president of Noel/Levitz, many colleges are re-examining "killer courses"—those that freshmen have typically found difficult—to determine whether prerequisites should be put in place or the classes themselves should be changed.

Close student-faculty interaction, which helps give students the sense that they are a meaningful part of the academic community, is being touted as an effective means of retaining students. Faculty members are increasingly being asked to live in student dormitories, and more and more are taking an active role in supporting students' extracurricular endeavors. Along with administrators, they are more frequently asking students to lunch or inviting them to their homes for dinner.

To help limit confusion about degree requirements, choosing a major, and the like, centralized academic-advising centers—staffed by professionally trained advisers—are being set up at some institutions.

Because studies show that the highest dropout rates occur among the lowest achievers, enrollment managers are focusing on attracting better students through honors programs or vigorous recruitment of merit scholars.

And some admissions offices are trying to recruit applicants who will thrive at their particular campus, rather than trying to attract anyone and everyone.

To help officials assess their institutions' public image, the College Board is considering a survey that participating colleges would distribute to accepted applicants who both did and did not decide to enroll, according to Darrell Morris, executive director of data and special services.

The applicants would be asked by the institution to name the other colleges to which they applied, to say where they decided to go and why, and to describe how they perceived the surveying college as compared to the others they were considering.

If developed, the survey will be processed for the surveying institutions by the College Board.

'User-Friendly Environment'

Hoping to improve enrollments and retention by creating an atmosphere that was more sensitive to the needs of students, Saint Cloud's President McDonald initially set out to make his campus a "user-friendly environment," he says.

He set up an admissions committee, which later became the Enrollment Management Steering Committee—a group of 10 high-level administrators, including three vice-presidents, who meet at least eight times a year to brainstorm and measure progress.

He and the committee looked at financial aid and found it took 13 weeks to process a loan. They examined procedures for paying tuition and discovered block-long lines. They studied the curriculum and found gaps. They went to the dining hall and saw a need for renovation. They evaluated the secretarial staff and realized secretaries would be more helpful to students if they were better informed. They checked out student life and saw that a lot of people were going home on weekends.

Now, it takes only one week to process a student loan. Payment lines have been eliminated. Electrical engineering has been added to the curriculum, as have 85 new sections of already-existing classes, with more being scheduled for the spring. A renovation of the dining hall is planned. An orientation is being scheduled for the secretaries to give them basic advising information for students. Many new extracurricular organizations have been started, and fewer students are returning home Friday nights.

All applicants in the upper half of their high-school graduating classes, or with a composite score of 20 (out of 36) on the American College Testing Program's A.C.T. Assessment are admitted to Saint Cloud. But, hoping to attract better students, the university has beefed up its honors program and its recruitment of merit scholars.

The enrollment-management committee members decided to make the general-studies program, which caters to weaker students, somewhat smaller, so they could devote more resources to stronger students. They raised the standards for admission to the undergraduate business college.

The admissions office made its literature slicker and started pushing campus visits by prospective students, producing a snappy film for such occasions.

And, says Myron Umerski, registrar and director of advising and orientation, "we put together an orientation package that would make students want to come back."

Applications Up 24 Pct.

The results have been more positive than officials here ever expected.

The Minnesota Higher Education Coordinating Board had predicted that by this year the university would have no more than 8,500 students. Its estimate was far off: Today, the university has 14,220. Since 1982, the number of freshman applications has increased almost 24 per cent, freshman enrollment 26 per cent, and retention after the first year 5.6 per cent. Credit-hour production is up 17.3 per cent. Graduate enrollments are up 47 per cent.

"I'm hoping that we are able to

Achievement Leveled Off in 1986 After 4 Years of Growth, Bennett Reports

WASHINGTON

Educational achievement leveled off in 1986 after four years of steady gains, Education Secretary William J. Bennett reported last week.

Although high-school graduation rates slipped in 33 states and average scores on standardized college-admissions tests rose only slightly last year, Mr. Bennett called the overall upward trend in achievement since 1982 "very encouraging."

He credited the education-reform movement, sparked by the federal government's 1983 report *A Nation at Risk*.

"I don't think it's likely that we've peaked," he added.

The Department of Education's data rank the states on a variety of criteria, including test scores, per-pupil expenditures, and student-teacher ratios. A new feature of this year's data is a checklist of states in which education reform has taken place.

Praises State Leaders

Mr. Bennett praised state leaders for their efforts to upgrade the quality of schoolteachers. Twenty-seven states have established "alternative certification" programs to attract to the teaching profession college graduates who lack education courses, he said, and 41 offer financial incentives to teachers based on their performance. In addition, he noted, the average teacher's salary has risen faster than inflation over the last five years.

Mr. Bennett endorsed state efforts to hold students, teachers, and schools accountable for their performance. According to his report, 24 states require students to pass competency tests before they can graduate from high school; 12 require students to pass basic-skills tests before advancing to the next grade; 35 require new teachers to pass a competency test for certification; and 7 allow the state to intervene in "academically bankrupt" school districts where students are performing below standards.

Although Mr. Bennett said he was "generally pleased" with the reform movement, he complained about "the growth of the blob—the educational bureaucracy."

Graduation Rate Dips

Commenting on the finding that the national high-school graduation rate had dipped from 70.8 per cent to 70.6 per cent from 1984 to 1985, Mr. Bennett said he did not believe higher graduation standards accounted for the decline. High standards and low dropout rates go hand in hand, he said.

A limited number of copies of the report are available without cost from the U.S. Department of Education, Office of Public Affairs, Publications Branch, Room 2089, 400 Maryland Avenue, S.W., Washington 20202. —JEAN EVANGELAUF

College Admissions Test Scores by State, 1986

	Test	Average score	1-year change	Per cent tested
Alabama	ACT	18.2	+0.6	49.6%
Alaska	ACT	18.1	+0.5	37.6%
Arizona	ACT	19.3	+0.6	36.8%
Arkansas	ACT	18.1	+0.7	52.3%
California	SAT	904	0	43.3%
Colorado	ACT	19.9	+0.2	59.9%
Connecticut	SAT	914	− 1	69.5%
Delaware	SAT	917	− 1	59.6%
D.C.	SAT	852	+ 8	53.5%
Florida	SAT	895	+11	44.4%
Georgia	SAT	842	+ 5	55.4%
Hawaii	SAT	880	+ 3	51.3%
Idaho	ACT	19.2	+0.4	52.4%
Illinois	ACT	19.1	+0.2	60.2%
Indiana	SAT	874	− 1	49.5%
Iowa	ACT	20.6	+0.3	58.3%
Kansas	ACT	19.2	+0.1	60.6%
Kentucky	ACT	18.1	+0.2	50.9%
Louisiana	ACT	16.9	+0.4	57.5%
Maine	SAT	900	+ 2	51.8%
Maryland	SAT	911	+ 1	53.8%
Massachusetts	SAT	909	+ 3	66.5%
Michigan	ACT	18.9	0	51.2%
Minnesota	ACT	20.3	+0.1	30.5%
Mississippi	ACT	16.3	+0.8	60.3%
Missouri	ACT	19.2	+0.4	47.9%
Montana	ACT	19.8	+0.3	51.5%
Nebraska	ACT	20.0	+0.3	61.8%
Nevada	ACT	19.0	+0.5	40.1%
New Hampshire	SAT	935	− 4	61.0%
New Jersey	SAT	889	0	66.0%
New Mexico	ACT	17.9	+0.4	52.3%
New York	SAT	898	− 2	64.8%
North Carolina	SAT	835	+ 2	51.3%
North Dakota	ACT	18.5	+0.4	61.2%
Ohio	ACT	19.3	+0.1	46.4%
Oklahoma	ACT	17.8	+0.3	48.1%
Oregon	SAT	930	+ 2	46.0%
Pennsylvania	SAT	894	+ 1	54.4%
Rhode Island	SAT	898	+ 3	58.7%
South Carolina	SAT	826	+11	50.0%
South Dakota	ACT	19.9	+0.7	61.9%
Tennessee	ACT	18.0	+0.4	56.6%
Texas	SAT	877	− 1	39.3%
Utah	ACT	19.1	+0.2	61.7%
Vermont	SAT	916	− 3	61.8%
Virginia	SAT	908	0	58.9%
Washington*	—	—	—	—
West Virginia	ACT	17.7	+0.3	47.5%
Wisconsin	ACT	20.5	+0.2	38.8%
Wyoming	ACT	19.7	+0.3	55.6%
U.S. average	ACT	18.8	+0.2	
	SAT	906	0	

Note: The ACT (American College Testing Program's ACT Assessment) is scored on a scale from 1 to 36. The SAT (the College Board's Scholastic Aptitude Test) is scored on a scale from 400 to 1,600. For each state one score is given, depending on which test was taken by more students. The table shows the percentage of high-school graduates who took the test.

* Omitted because fewer than 35 per cent of the students took either test.

SOURCE: U.S. DEPARTMENT OF EDUCATION